

TWINDOW[®]

the world's finest insulating glass!



PITTSBURGH PLATE GLASS COMPANY

Year 'round window insulation means greater year 'round home comfort!

Neither Jack Frost's chilling hand in winter nor the heat of the "good old summertime" bothers you when your home has the twin-glass insulation provided by TWINDOW. This remarkable product—two pieces of glass, separated by a hermetically-sealed air space and completely surrounded by a stainless steel frame—has been made by Pittsburgh Plate Glass Company to help you keep your rooms warmer in winter . . . cooler in summer.

The trend in modern architecture to more window area per home means you can enjoy more of the outdoors—from the inside. TWINDOW, with its "insulation built-in," offers a practical, economical way to do this . . . a way to weatherproof your view! Large or small, your home will be more attractive, you'll derive

more enjoyment from your yard and view—with TWINDOW.

And there's this about changing seasons—as pleasant as it is to be out in the crisp, autumn air, or the warm, spring sunshine, there are certain days when it's much more pleasant to stay inside. With TWINDOW, you can bring another season into your rooms comfortably, with relative freedom from downdrafts, with less fogging of windows . . . and without excessive, costly heat loss through the window panes!

Whether you're building a new home, or remodeling the old one, be sure to specify TWINDOW. Ask your contractor or architect; he'll give you all the specific information needed regarding glass in your home . . . and he'll verify the facts contained in this booklet.





TWINDOW

saves you

MONEY - TIME - WORK

SAVE fuel dollars

The insulating qualities of TWINDOW in your home make it easier to maintain uniform, comfortable temperatures in your rooms. The twin panes of TWINDOW *cut heat loss about in half*, because less warm air can escape through two panes of glass. TWINDOW also does something else; it makes it easier to maintain proper *humidity*. And when humidity (moisture in the air) is *up*, you feel *warmer* than you do in dry air. So

TWINDOW permits you to get the same degree of comfort in your rooms in winter . . . but at *lower* temperatures. This saves fuel dollars, lowers your annual fuel bills. And you save on initial costs, as well, because a smaller heating plant can heat your home when you have TWINDOW instead of ordinary, single-glazed windows.

Even in the summer you save, because your air conditioner doesn't have to work overtime to cool your home. TWINDOW keeps heat *outside* in the summer, warmth *inside* in the winter.





SAVE cleaning and repair dollars

Because the room side of a TWINDOW unit is warmer than a single pane, more moisture is retained in the air inside the room than is generally possible with a single-glazed window. Thus, under normal conditions, TWINDOW reduces condensation that fogs or freezes on the pane of an ordinary window.



SAVE time and work

TWINDOW saves you the labor and time-consuming bother of washing storm windows, putting them up in the fall and taking them down in the spring. TWINDOW has only two surfaces of glass to clean. And, of course, there's never a storage problem with TWINDOW.



MORE usable floor space

With TWINDOW, you can use more of the floor space in the room, closer to the windows . . . because chilly downdrafts, often the penalty of large, uninsulated glass areas, are minimized with TWINDOW. This means your rooms are more evenly comfortable . . . and accordingly, more healthful!



Dining Room Kitchen

Two types of **TWINDOW** make

✿ METAL EDGE

Designed for larger, "picture" windows. Two panes of $\frac{1}{4}$ " Plate Glass are protected with a *stainless steel frame*—an exclusive feature, found *only* in TWINDOW! This frame completely surrounds the edges of the panes and provides a firm, even edge for installation, as well as protecting the seal. A $\frac{1}{2}$ " air space between the panes is hermetically-sealed, providing a "blanket" of dry, clean air between you and your view.

Generally, the glass used for TWINDOW—with metal edge—is Pittsburgh Polished Plate Glass. For special purposes—where day-long sunshine, unusual glare, or extreme heat is a problem—your architect may suggest a TWINDOW unit made up with other types of glass or combinations, such as Solex® Heat-Absorbing Glass and regular Plate Glass.

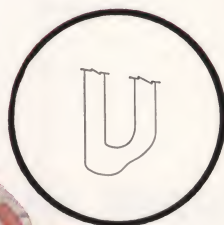
TWINDOW, with metal edge, is available in 57 standard sizes—which may be reversed, width and height, making, in effect, 114 sizes.





Bedroom Living Room

possible twin-glass insulation *for every room in the house!*



✿ GLASS EDGE

The first and only electrically-fused, all-glass insulating windowpane, with glass-to-glass sealed edge. Ideal for smaller windows in your home, this type of TWINOW is composed of two panes of double strength, "A" quality Pennvernon® Window Glass ($\frac{1}{8}$ " thick), separated by a $\frac{3}{16}$ " air space. As easy to install as a single pane of glass, you'll find TWINOW, with an all-glass sealed edge, extremely well-suited for the popular "window wall" construction in modern homes, for smaller fixed panes in every room, for all types of operating windows.

Like TWINOW with a metal edge, TWINOW with a glass edge provides a means of cutting heating and air conditioning costs, and reduces condensation problems to a minimum. Ask your architect or builder which type TWINOW unit is best suited for your particular application. Ask him to specify window sash that can accommodate TWINOW.

TWINOW, with all-glass edge, is available in dozens of standard sizes.



Here's why you'll benefit with **TWINDOW**

The most important single function of a TWINDOW unit is its ability to reduce the amount of heat loss or gain (by conduction) through a window area.

This means that TWINDOW—in your home—will:
... reduce fuel bills and save on air conditioning, because its insulating efficiency is *twice* that of ordinary single-glazed windows
... minimize downdrafts near windows
... increase surface temperature of the glass next

to the room, thereby, reducing body radiation to these surfaces

... reduce fogging, frost on windows in winter
... eliminate the need for storm windows, since TWINDOW acts as built-in storm windows

And TWINDOW also deadens the transmission of outside noises, an additional contribution to your comfort!

THIS WIDE RANGE OF STANDARD SIZES MAKES IT EASY FOR YOU TO ENJOY THE BENEFITS OF TWINDOW

METAL EDGE

2 Pieces 1/4" Polished Plate Glass—1/2" Air Space

35 1/2" x 36"	45 3/8" x 52"	48 1/8" x 55 1/4"	50 3/8" x 60 1/4"	58" x 116 1/2"
35 1/2" x 48 1/8"	46" x 48 1/2"	48 1/8" x 68 3/4"	52 1/2" x 58 1/8"	60" x 72"
35 1/2" x 60 3/8"	46" x 64 1/2"	48 1/8" x 75"	52 1/2" x 70 1/8"	60 1/4" x 66 3/8"
36" x 44 1/2"	46" x 72 1/2"	48 1/8" x 93"	55 1/4" x 60 3/8"	60 3/8" x 68 3/4"
36" x 55 1/4"	46 1/8" x 52 1/2"	48 1/2" x 50"	56 1/2" x 58 1/8"	60 3/8" x 75"
36" x 68 3/4"	46 1/8" x 56 1/2"	48 1/2" x 58"	56 1/2" x 66"	60 3/8" x 93"
36" x 75"	47 7/8" x 50 3/8"	50" x 56 1/2"	56 1/2" x 70 1/8"	64 1/2" x 66"
36" x 93"	47 7/8" x 66 5/8"	50" x 64 1/2"	58" x 64 1/2"	66" x 72 1/2"
42" x 66"	48" x 48"	50" x 72 1/2"	58" x 72 1/2"	66" x 84"
42" x 72"	48" x 60"	50" x 80 1/2"	58" x 80 1/2"	66" x 96"
44 1/2" x 48 1/8"	48" x 72"	50" x 96 1/2"	58" x 96 1/2"	72" x 84"
44 1/2" x 60 3/8"				72" x 96"

SPECIAL STANDARD SIZES FOR "WINDOW WALL" CONSTRUCTION

2 Pieces 1/8" Pennvernion Window Glass—1/4" Air Space 45 1/2" x 25 1/2" 42 1/2" x 22 1/2"

2 Pieces 3/16" Pennvernion Window Glass—1/2" Air Space 45 3/8" x 52"

GLASS EDGE


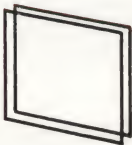
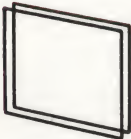
2 Pieces 1/8" Pennvernion Window Glass—3/16" Air Space

16 5/16" x 24 5/8"	21 1/16" x 36 13/16"	32" x 16"	39 5/8" x 18 1/4"
16 5/16" x 30 13/16"	21 1/16" x 49"	34 11/16" x 22 11/16"	39 5/8" x 22 1/4"
16 5/16" x 36 13/16"	21 1/16" x 61 3/16"	36" x 24"	42 1/2" x 22 1/2"
16 5/16" x 49"	27 1/4" x 10 1/4"	36 5/8" x 14 1/4"	44" x 16"
16 5/16" x 61 3/16"	27 1/4" x 14 1/4"	36 5/8" x 18 1/4"	44 5/8" x 14 1/4"
20" x 16"	27 1/4" x 18 1/4"	36 5/8" x 22 1/4"	44 5/8" x 18 1/4"
21 1/16" x 24 5/8"	27 1/4" x 22 1/4"	39 5/8" x 14 1/4"	44 5/8" x 22 1/4"
21 1/16" x 30 13/16"			45 1/2" x 25 1/2"

THE AMOUNT OF HEAT TRANSFER by conduction through a window area determines—to a great extent—how much you'll spend heating or cooling a room. Under average conditions, regular double-glazed TWINDOW insulating units reduce the amount of heat transfer by about ½ the normal amount that is transferred through an equivalent area of conventional, single-glazed windows.

The table below shows "U" values* for various glass combinations—and also shows that the thickness of the glass itself contributes relatively little to the "U" value.

INSULATING VALUE OF TWINDOW COMPARED TO SINGLE GLASS

TYPE GLAZING	GLASS THICKNESS	AIR SPACE THICKNESS	"U" VALUE	SAVINGS IN HEAT TRANSFER OVER SIMILAR AREA SINGLE-GLAZED WITH SAME THICKNESS GLASS*
 SINGLE	⅛"		1.14	
	¼"		1.12	
 TWINDOW (with metal edge)	⅛"	¼"	.63	45%
	¼"	¼"	.61	46%
	⅛"	½"	.57	50%
	¼"	½"	.55	51%
 TWINDOW (with glass edge)	⅛"	⅜"	.67	41%

*"U" VALUE is the amount of heat, expressed in BTU's, which will pass through one square foot of window area per hour for each degree Fahrenheit temperature difference between air on the inside and air on the outside. (Values shown are based on 70°F. temperature inside, 0 mph wind velocity; 0°F. outside, 15 mph wind velocity.)

Here's where **TWINDOW**
—a tested product—is already used
in a wide variety of buildings

NEW STORE

All exterior glazing, excepting the display windows, in the new John Wanamaker store in Wilmington, Del., is TWINDOW. By admitting an abundance of natural daylight, TWINDOW keeps interiors light and airy, brings more comfort to workers and shoppers alike.



NEW AIRPORT

At the Philadelphia International Airport, delicate electronic instruments are protected against excessive temperature variations—by TWINDOW. In addition, hundreds of air travelers and the workers at the airport benefit from the reduced heat and glare and more comfortable interiors provided by the use of SOLEX-TWINDOW!





NEW OFFICE BUILDING

The Aluminum Company of America chose TWIN-DOW units to glaze this aluminum-faced skyscraper in Pittsburgh, Pa. By combining TWIN-DOW—the window with insulation built-in—and Solex heat-absorbing, glare-reducing glass, maximum comfort is afforded the occupants of this distinctive office building in Pittsburgh's "Golden Triangle."

NEW HOTEL

TWIN-DOW gives patrons of the Gourmet Room in Cincinnati's Terrace Plaza Hotel a clear view of the surrounding city. It's a view without the discomfort of cold windows, downdrafts; and provides much less drain on the heating and air-conditioning system than conventional single-glazed windows.



NEW HOME

Typical of many hundreds of modern ranch style homes all over America, this home offers the ultimate in gracious living. TWIN-DOW units help the air-conditioning system maintain summer and winter comfort throughout this luxurious, yet inexpensive home.

Guarantee

During a period of five (5) years after date of manufacture, TWINDOW INSULATING GLASS UNITS, installed in the United States or Canada, are guaranteed not to develop, under normal conditions, material obstruction of vision as a result of dust or film formation on the internal glass surfaces caused by failure of the hermetic seal other than through glass breakage.

Any units failing to comply with the terms of this guarantee will be replaced F.O.B. nearest shipping point to place of installation. This represents our maximum liability. This guarantee is effective only if installation is made in accordance with our specific instructions and does not apply to units damaged by improper handling or installation.



Here's where to buy **TWINDOW**

We suggest you call your architect, builder, local glass dealer, or contact your nearest Pittsburgh Plate Glass Company branch for particulars concerning the application of TWINDOW to your own building or remodeling plans. They'll be glad to help, and will tell you about the many satisfied customers who have found TWINDOW the best way to weatherproof a view . . . quickly, easily and economically!

You'll find the names of dealers and branches carrying Pittsburgh Plate Glass Products in the yellow pages of your phone book. Look under the heading "Pittsburgh Glass Products" in the "Glass" section.

Pittsburgh Products are sold in Canada by Canadian Pittsburgh Industries Limited, whose dealers can also be located in the Canadian Classified Directories.

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